CLASS VI MECHANICAL INTEGRITY TESTING

INJECTION WELL 357-7R
40 CFR 146.82(c)(7)-(8) and 146.87(a)(4)

ELK HILLS A1-A2 PROJECT

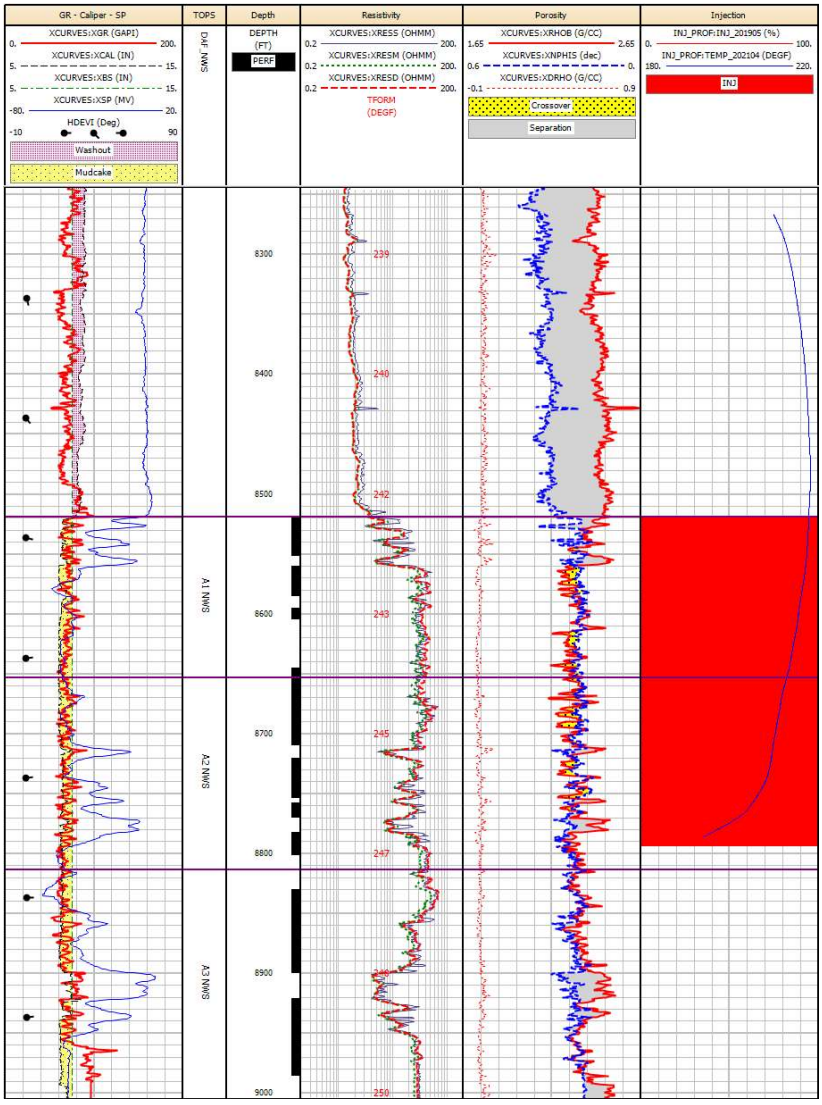
357-7R Mechanical Integrity Testing

The 357-7R and 355-7R injection wells are being repurposed for the Carbon TerraVault 1 LLC (CTV) Elk Hills A1-A2 project. These wells have been approved by California Geologic Energy Management (CalGEM) for Class II gas injection for pressure maintenance. As part of this approval and ongoing surveillance, mechanical integrity tests (MIT) and standard annular pressure tests (SAPT) have been conducted. CTV will acquire additional mechanical integrity tests prior to the injection of CO_2.

357-7R Gas Injection Survey

The gas injection survey (conducted in 2019) uses radioactive tracer to determine injection zone conformance. The interpreted log example below (Figure 1) shows 100% of the injection confined to 8520-8794 feet. The temperature curve shows that injection is confined below the packer as temperature trends toward gradient above the packer.

Figure 1: Radioactive tracer and temperature survey for well 357-7R showing mechanical integrity of the tubing and isolation of the perforation by the packer.



357-7R Standard Annular Pressure Testing

The standard annular pressure test (Figure 2) shows that the annulus is capable of holding pressure without gain or loss for 20 to 30 minutes indicating mechanical integrity of the tubing, casing and packer.

Figure 2: SAPT for 357-7R showing mechanical integrity of the tubing, casing, and packer.